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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,742	02/26/2002	Wilhelmus Franciscus Johannes Verhaegh	NL 000357	5245

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US Philips Corporation
Intellectual Property Department
580 White Plains Road
Tarrytown, NY 10591

EXAMINER

KRISCIUNAS, LINDA MARY

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/069,742	Applicant(s) VERHAEGH ET AL.	
	Examiner Linda Krisciunas	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/26/02 & 7/18/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Non-Final Office Action in response to the application filed February 26, 2002. Claims 1-10 are pending. The Examiner notes the preliminary claim amendments filed February 26, 2002.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahapatro (US 6,571,215).

As per claims 1 and 6, Mahapatro teaches a method of determining a schedule for executing tasks requiring a plurality of resources (column 5, lines 11-15), comprising the steps of constructing a set of constraints from given requirements of each task and from given limitations on each resource (column 5, lines 50-57, where the constraints are associated with the tasks and how the resources are assigned to the tasks and the work-amount that the resource must perform); determining for each task a relative start time, a relative ending time and an assignment of resources, based on the constraints from said set (column 6, lines 33-44, where the start time and completion time of tasks that are dependent upon other tasks is identified. The fact that the tasks are dependent

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upon other tasks means the start and end time are relative, with respect to the dependent tasks. The resources are assigned to the tasks as noted in column 6, lines 45-60); determining for each task an absolute starting time, an absolute ending time and a collection of times and associated task processing speeds, based on the determined relative starting time, relative ending time and assignment of resources for each task, minimizing any violation of the constraints from said set (column 6, lines 45-67, where the items in the third group that are not dependent upon another task are scheduled and assigned their resources. These have absolute start and completion times since they are not dependent upon another task, but must still be schedule with the dependent tasks in mind so that the tasks or assignments can be finished by the required date. Scheduling takes place by following the priority listing taught by Mahaparto whereby the priorities would include the constraints as previously mentioned in column 5, lines 54-57. The task processing speed or work-amount or duration is taught in column 12, lines 15-17.); and determining the schedule, comprising for each task the determined absolute starting time, absolute ending time, collection of times and associated task processing speeds and assignment of resources to the task (column 12, lines 13-27, where the schedule is created based upon the start and completion dates, resources, work-amount and constraints of the system.).

As per claims 2 and 7, Mahapatro teaches defining a sequence of windows, a starting time of a window from said sequence corresponding to one of the relative starting time and the relative ending time of a task, and an ending time of said window corresponding to a starting time of a next window in said sequence; determining an

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absolute length of the windows from said sequence, minimizing any violation of the constraints from said set; determining for each window a processing speed for each task and creating for each task a collection of times and associated task processing speeds based thereupon, minimizing any violation of the constraints from the set; and determining for each task the absolute starting time and the absolute ending time from the absolute length of the windows (Claims 2 and 7 cite the same limitations as claims 1 and 6 except for the term window. Paragraph 20 of the specification cites "window widths are easily converted to absolute starting and ending times for the tasks" This term, as defined in the specification, is interpreted by the Examiner to be consistent with the duration of a task, often referred to as a time frame or time window. Therefore the same rejections apply to claims 2 and 7 as cited in claims 1 and 6.).

As per claims 3 and 8, Mahapatro teaches determining whether any violation of the constraints has occurred, and if so, determining at least one of a new relative starting time for a task, a new relative ending time for a task, and a new assignment of a resource to a task (column 5, lines 45-67 and column 6, lines 1-32, where the program of the system is such that the constraints are used to schedule the tasks and their respective resources, therefore the program verifies that nothing is scheduled in violation of the constraints. The start and completion time of tasks are given to the tasks based upon these constraints); and executing step c (column 6, lines 45-67, where the items in the third group that are not dependent upon another task are scheduled and assigned their resources. These have absolute start and completion times since they are not dependent upon another task, but must still be schedule with the dependent

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tasks in mind so that the tasks or assignments can be finished by the required date.

Scheduling takes place by following the priority listing taught by Mahaparto whereby the priorities would include the constraints as previously mentioned in column 5, lines 54-57. The task processing speed or work-amount or duration is taught in column 12, lines 15-17.).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahaparto (US 6,571,215).

As per claims 4 and 9, Mahaparto teaches determining the absolute length of the windows from said sequence comprises solving a linear programming problem (Linear programming problems are ones where the objective function and constraints are linear. These programs are often used for optimization solving scenarios. Mahaparto teaches CPM scheduling which is a linear programming technique as noted in "Resource Leveling of Linear Schedules Using Integer Linear Programming" by Mattila et al, Journal of Construction Engineering and Management, vol 124, iss 3, p 232-244, May/June 1998. Mahaparto teaches a linear object function of scheduling consecutive tasks and the constraints utilized are also linear since they deal with time. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to

utilize a linear program with the system of Mahaparto to provide a means for optimizing the assignment of tasks and resources.).

As per claims 5 and 10, Mahaparto teaches determining for each window a task processing speed for each task comprises solving a linear programming problem (Claims 4 and 9 are comparable to claims 5 and 10 except for the substitution of speed of the task for length of the window. The length of the task is equivalent to the duration which is also equivalent to the speed of the task, therefore the same rejection applied to claims 4 and 9 applies to claims 5 and 10.).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art also teaches about schedules: Dworzecki (US 5,826,080), Dworzecki (US 5,606,695), Harris et al (US 6,438,704), Kamada et al (US 6,108,683), Jones et al (US 6,003,061), D'Souza (US 6,948,172), Jones et al (US 5,812,844), "Microsoft Project-Plan, Manage and Communicate with Ease" (Microsoft Corporation 1995), www.jdr.com/pdf/ms-proj95-u.pdf, (5 pages); and "Teach Yourself Microsoft Project 2000 in 24 hours" by Sam Pyron, Sams Publishing, May 1, 2000, (28 pages).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Krisciunas whose telephone number is 571-272-6931. The examiner can normally be reached on Monday through Friday, 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMK



May 4, 2006



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